KOCHERGIN, N.A.; DIL'MAN, V.V., kand.tekhn.nauk; OLEVSKIY, V.M., kand.tekhn.nauk

Mass transfer during the rectification in columns with perforated plates of the turbogrid type. Khim.prom. no.8:567-570 Ag '61. (MIRA 14:8)

(Plate towers) (Mass transfer)

KOCHERGIN, N.G.

BAKULEV, A.N., glavnyy red.; ANICHKOV, N.N., red.; BOLDYREV, T.Ye., red.;
BRUSILOVSKIY, L.Ya., red.; BYKOV, K.M., red.; VASILENKO, V.Kh.,
red.; GRASHCHENKOV, N.I., red.; DAVYDOVSKIY, I.V., red.;
ZDRODOVSKIY, P.F., red.; KAVETSKIY, P.Ye., red.; KOCHERGIN, N.G.,
red.; KROTKOV, F.G., red.; KUPRIYANOV, P.A., red.; LEBEDINSKIY,
A.V., red.; MALINOVSKIY, M.S., red.; MAN'KOVSKIY, B.N., red.;
NESTEROV, A.N., red.; ORBELI, L.A., red. PAVLOVSKIY, Ye.N., red.;
SEVERIN, S.Ye., red.; SKRYABIN, K.I., red.; SMIRNOV, Ye.I., red.;
TIMAKOV, V.D., red.; TUR, A.F., red.; SHABANOV, A.N.. red.;
GRISHINA, L.A., tekhn. red.

[Great Medical Encyclopedia] Glav. red. A.N. Bakulev. Chleny red.
kollegii N.N. Anichkov i dr. Moskva, Gos. izd-vo med. lit-ry.
Vol.6. Vul'va - Gimantrop. Izd.2. 1958. 1184 columns. (MIRA 11:9)
(Medicine—Dictionaries)

ARKAD'YEVA, O.M.; KOCHERGIN, N.L., matematik, red.; MOTINA, Ye.I., lingvist, red.; GUS'KOV, G.G., red.; MASLENNIKOVA, T.A., tekhn. red.

[Reading-book on mathematics, mechanics, and astronomy; textbook for foreign students studying the Russian language] Kniga dlia chteniia po matematike, mekhanike i astronomii; dlia studentov-inostrantsev, izuchaiushchikh russkii iazyk. Uchebnoe posobie. Moskva, Izd-vo Mosk. univ., 1961. 172 p. (MIRA 14:11)
(Mathematics) (Physics)

DYTNERSKIY, Yu.I., kand. tekhn. nauk; KASATKIN, A.G., doktor tekhn. nauk, prof. [deceased]; KOCHERGIN, N.V., inzh; GERVITS, V.M., inzh.

Calculating hydraulics and mass exchange on valve plates. Khim. i neft. mashinostr. no.2:15-20 Ag '64. (MIRA 18:1)

DYTNIERSKI, J.I. [Dytnerskiy, Y.I.]; KOCZERGIN, N.W. [Kochergin, N.V.];
Cholpanow, Z.P. [Cholpanov, Z.P.]

Heat transfer rate on contact trays. Pt. 1. Chemia stosow B 1
no.3:363-369 '64.

1. Department of Processes and Apparatus of the Chemo-Technological Institute, Moscow. Submitted December 5, 1963.

DYTNERSKIY, Yu.I.; KASATKIN, A.G.; KOCHERGIN, N.V.

Analogy of the processes of pulse, mass, and heat transfer on contact plates. Zhur.prikl.khim. 35 no.12:2701-2705 D '62. (MIRA 16:5)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I.Mendeleyeva.
(Plate towers) (Heat--Transmission) (Mass transfer)

DYTNERSKIY, Yu.I., kand.tekhn.nauk; KASATKIN, A.G., doktor tekhn.nauk;
KOCHERGIN, N.V.; VOLKOV, T.M.; NYAREP, E.Yu. [Naarep, E.]

Industrial application of turbogrid-type plates for recovering natural gasoline by solar oil. Koks i khim. no.16:40-43 '61. (MIRA 15:2)

1. Moskovskiy Ordena Lenina khimiko-tekhnologicheskiy institut im. D.I.Mendeleyeva (Dytnerskiy, Kasatkin, Kochergin). 2. Slantsepererabatyvayushchiy kombinat, g. Kokhtla-Yarve (for Volkov). 3. Institut slantsev Estonskogo Soveta Narodnogo Khozyaystva (for Nyarep).

(Gasoline)
(Plate towers)

DYTNERSKIY, Yu.I.; KASATKIN, A.G.; KOCHERGIN, N.V.; Prinimali uchastiye:
SMIRNOVA, I.M.; GROMOGLASOVA, O.M.

Mass transfer on valve and ballast plates. Zhur.prikl.khim.
35 no.10:2247-2251 O '62. (MIRA 15:12)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I.
Mendeleyeva.

(Plate towers) (Mass transfer)

KASATKIN, A. G.*; DYTNERSKIY, Yu. I.; KOCHERGIN, N. V.

"The mass and heat transfer in plate columns."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Moscow Chemical Technological Inst.

KOCHERGIN, P.G.

A 246763

USSR/Geography - Pedagogy Jan/Feb 53

"Some Problems of the Formation and Support of a School Course in Geography," P.G. Kochergin

"Iz V-S Geograf Obshch" Vol 85, No 1, pp 72-78

States that most difficult of subjects problems is the selection of material. Presents other scientific-methodological problems which must also be solved now.

246763

KOCHERGIN, P.G.

Continents and parts of the world. Izv.Vses.geog.ob-va 85 no.4:450-451 Jl-Ag '53. (MLRA 6:8)
(Physical geography--Terminology)

KOCHERGIN, P.O.

"Problems of teaching world geography in the 6th class." T.S. Panfilova. Reviewed by P.O.Kochergin. Geog.v shkole no.1:76-77 Ja-F '54. (MLRA 7:1)
(Panfilova, T.S.) (Geography--Study and teaching)

KOCHERGIN, P.G.

[redacted]

Concerning the study of general physical geography in school.
Izv.Vses.geog.ob-va 86 no.6:545-551 N-D '54. (MLRA 8:2)
(Physical geography--Study and teaching)

1. KOCHERGIN, P. G.; BOGOYAVLENSKIY, G. P.

2. USSR (600)

4. Geography

7. "Problems in geography." Reviewed by P. G. Kochergin, G. P. Bogoyavlenskiy.
Sov. kniga no. 10, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

KOCHERGIN, P. (G.)

"Countries of Asia"; "Countries of Europe" [both in Ukrainian]. K.P.Piartli, N.B.Rozenberg. Reviewed by P.Kochergin. Geog. v shkole 18 no.1:75 Ja-F '55. (MLRA 8:3)
(Asia--Geography)(Europe--Geography)(Piartli,K.P.)
(Rozenberg,N.B.)

KOCHERGIN, P.G.

Some problems concerning the contents of courses in the physical geography of the world in schools of higher education. Izv. Vses. geog. ob-va 88 no.1:73-76 Ja-F '56. (MLRA 9:6)

(Physical geography--Study and teaching)

KOCHERGIN, P.G.

Urgent problems in geographic methods. Geog. v shkole 22
no.1:34-41 Ja-F '59. (MIRA 12:4)
(Geography--Study and teaching)

KOCHERGIN, P.G. (Kursk); YERMOLAYEV, A.D., (Ul'yanovsk); PASTE[illegible]SOVICH,
E.L. (Leningrad); MOZZHELIN, A.I.; LAVROV, V.A.; ZIMINA, A.

Discussion of new geography programs. Geog.v shkole 23 no.1:
63-74 Ja-F '60. (MIRA 13:5)

1. 176-ya shkola rabochey molodezhi Moskvy (for Mozzhelin).
2. 7-ya shkola rabochey molodezhi Kalinina (for Lavrov).
(Geography--Study and teaching)

KOCHERGIN, P.G.

Scientific basis of the content of the geography course for eight-year scool. Vest. Mosk. un. Ser.5: Geog. no.2:19-23 Mr-Ap '61. (MIRA 14:4)

1. Kafedra geografii, Kurskiy pedagogicheskiy institut.
(Geography--Study and teaching)

KOCHERGIN, P.; GORICHENSKIY, I.M.; TYUKAYEV, A.A., uchitel'

Letters from the readers. Geog. v shkole 24 no. 1:69-70 Ja-F '61. (MIRA 14:2)

1. Kurskiy pedagogicheskiy institut (for Kochergin). 2. Starshiy prepodavatel' Kazanskogo sel'skokhozyaystvennogo instituta (for Gorichenskiy). 3. Belasovskaya shkola Gor'kovskoy oblasti (for Tyukayev).

(Geography—Study and teaching)

KOCHERGIN, P.G.

Main problems of the contents of school geography. Izv. Vses. geog. ob-va 95 no.4:348-351 Jl-Ag '63. (MIRA 16:9)
(Geography--Study and teaching)

OCHFROIN, P.G.

Introduce the teaching of general physical geography in school. Vest. Mosk. un. Ser. 5: Geog. 20 no.1:52-57 Ja-F '65.
(MIRA 18:3)

1. Kafedra geografii Kurskogo pedagogicheskogo instituta.

KOCHERGIN, P. M.

Organic Chemistry

Dissertation: "Investigation in the Series of Derivatives of Mercaptoimidazole." Cand Chem Sci, All-Union Sci Res Chemicopharmaceutical Inst imeni Sergo Ordzhonikidze (VNIKhFI), 25 Mar 54. (Vechernyaya Moskva, Moscow, 15 Mar 54)

SO: SUM 213, 20 Sept 1954

KOCHERGIN, P.M.

②

1/2

Imidazole. I. 4(5)-Phenylimidazolyl-2-mercaptans and [illegible]vatives. P. M. Kochergin and M. N. Shchukina (S. Ordzhonikidze All-Union Sci. Research Chem. Pharm. Inst., Moscow). Zhur. Obshchei Khim. 25, 2182-6(1955). Refluxing 28 g. BzCH$_2$NH$_2$.HCl and 17.6 g. KCNS in EtOH 8.5 hrs. gave 23 g. *4(5)-phenyl-2-mercaptoimidazole*, m. 261°; an 92.6% yield is obtained in AcOH soln. The use of *p*-O$_2$NC$_6$H$_4$COCH$_2$NH$_2$.HCl gave 80.4% *4(5)-p-nitrophenyl-2-mercaptoimidazole* (I), does not m. below 320°; in AcOH the yield is 98%. This treated with hot 10% HNO$_3$ 10 min. gave *4(5)-p-nitrophenylimidazole*, m. 225°; *nitrate*, m. 200°. Reduction of I with NH$_4$HS in aq. EtOH at room temp. gave *4(5)-p-aminophenyl-2-mercaptoimidazole*, m. 227-9° (from EtOH); *HCl salt*, decomp. 265-70°. A soln. of 0.88 g. Na in 18 ml. EtOH was treated with 5 ml. H$_2$O and 2.82 g. *4(5)-phenyl-2-mercaptoimidazole* (II), followed by 2.13 g. MeI and heating at 45° 4 hrs.; there was obtained 97.5% *4(5)-phenyl-2-methylmercaptoimidazole*, m. 135.5-6.5° (from aq. EtOH); *HCl salt*, m. 180-91°. The use of EtI gave *4(5)-phenyl-2-ethylmercaptoimidazole*, m. 129-30°; *HCl salt*, m. 62-3°, while the use of PrBr gave 94.5% *4(5)-phenyl-2-propylmercaptoimidazole*, m. 78-9°; *HCl salt*, m. 148.5-9°. Similarly was prepd. 96% *4(5)-phenyl-2-butylmercaptoimidazole*, oil; *HCl salt*, m. 172-3°. *4(5)-phenyl-2-isoamylmercaptoimidazole*, m. 81-3° (*HCl salt*, m. 170-70.5°), was prepd. similarly in 90% yield from iso-AmBr, while benzyl bromide gave 91.8% *4(5)-phenyl-2-benzylmercaptoimidazole*, oil; *HCl salt*, m. 130-0.5°. Sand-

[illegible] I [illegible] 4(5)-[illegible]

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larly, II treated with Na-EtOH, followed by p-O$_2$NC$_6$H$_4$[illegible] and refluxed 4 hrs. gave 4(5)-phenyl-1-p-nitrobenzyl[illegible]imidazole, decomp. 150-2°; HCl salt, m. 242-3.5°. Similarly I and iso-AmBr gave 76.2% 4(5)-p-[illegible]imidazole, isol. HCl salt, m. 188-9° decomp. II in EtOH-EtONa treated with EtI and refluxed 3 hrs. gave a mixt. from which was obtained a low yield of 1-ethyl-4-phenyl-2-ethylmercaptoimidazole, isol. picrate, m. 184-5°; free base, b.$_4$ 157-60°. G. M. Kosolapoff

KOCHERGIN P.M.

2

Imidazole series. II. (5-Phenyl-2-imidazolyl alkyl-(aryl) sulfones and sulfoxides. P. M. Kochergin and M. N. Shchukina. *J. Gen. Chem. U.S.S.R.* 25, 2289-91 (1955)(Engl. translation).—See *C.A.* 50, 9387i

B. M. R.

KOCHERGIN, P.M.

Producing paranitroacetophenone from ethyl benzene. Med.prom. 10 no.4:7-8 '56. (MIRA 10:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(ACETOPHENONE) (BENZENE)

KOCHERGIN, P.M.; SHCHUKINA, M.N.

Imidazole series. Part 4: Reaction of sulfuric acid with 2-β-keto-alkyl(aryl)-mercaptoimidazoles. Zhur.ob.khim. 26 no.6:1723-1727 Je '56. (MIRA 11:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S. Ordzhonikidze.

(Imidazole) (Sulfuric acid)

[illegible] of [illegible]

to yield 2,5-diphenyl[illegible]

[illegible]

KOCHERGIN, P.M.

The synthesis of 4-methyl-2-aminothiazole and some of its derivatives. Zhur. ob. khim. 26 no.10:2897-2900 O '56. (MIRA 11:3)

1. Vsesoyuznyy Nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Thiazole)

[illegible] HCSNHCOOR + NH [illegible] (I) gave [illegible] (II), m. 124-00°; dehydrogenation of I or II with [illegible] gave [illegible] yields of [illegible] (III) [illegible]

[illegible]

KOCHERGIN, P.M.

Imidazole series. Part 7: The action of acetic anhydride on 2-β-ketoalkyl (aryl) - mercaptoimidazoles. Zhur. ob. khim. 26 no.10: 2916-2924 O '56. (MIRA 11:3)

1. Vsesoyuznyy Nauchno-issledovatel'skiy khimiko farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Anhydrides) (Imidazole)

AUTHOR: Kochergin, P. M. 79-12-7/43

TITLE: Synthesis of the Para-, Ortho- and Metanitroethylbenzenes (Sintez p-, o- i m - nitroetilbenzolov)

PERIODICAL: Zhurnal Obshchey Khimii, 1957, Vol. 27, Nr 12, pp. 3204 - 3207 (USSR)

ABSTRACT:

The isomer-free synthesis of the p-, o- and m-nitroethylbenzenes was carried out. The author obtained the p- and o-nitroethylbenzenes according to the scheme:

$$C_2H_5C_6H_4NO_2 \rightarrow C_2H_5C_6H_4NH_2 \rightarrow C_2H_5C_6H_4NH_2 \cdot 1/2\ H_2SO_4 \rightarrow$$
$$\rightarrow C_2H_5C_6H_4N_2SO_3H \rightarrow C_2H_5C_6H_2NO_2$$

Course of the reaction process: 1) Fractional distillation of the mononitroethylbenzene mixture in the vacuum. 2) Reduction of the technically separated p- and o-nitroethylbenzenes over nickel in amines, which were converted to sulphates. 3) Re-crystallization of the p-aminoethylbenzene sulfate up to the constant melting point in water (contrary to the ortho- and meta-compounds it is difficulty soluble in water). 4) Re-crystallization of the o-aminoethylbenzene sulfate in alcohol up to the constant melting

Card 1/3

Synthesis of the Para-, Ortho- and Metanitroethylbenzenes 79-12-7/43

point. 5) Diazotization of the chemically pure p- and o-aminoethylbenzene sulfate with sodium nitrite in diluted sulphuric acid and substitution of its diazo-group by the nitro-group according to Sandmeyer. 6) Separation of the p- and o-nitroethylbenzenes obtained in the reaction mass by means of repeated distillation with vapor in the vacuum up to the constant temperature of solidification (-11,5° to -11°). The author obtained m-nitroethylbenzene as follows: 1) By means of the reduction of m-nitroacetophenone. 2) By means of the conversion of the amine, obtained according to Kishner, into m-aminethylbenzene. 3) Diazotisation of the latter and substitution of the diazo group by the nitro-group. The temperature of the solidification of the m-nitroethylbenzene was to -37,9°. The temperature of the solidification of the salts (hydro chlorides, sulfates and picrates) of all synthesized aminoethylbenzenes, as well as their physical constants were determined more exactly, than has hitherto been the case. There are 10 references.

Card 2/3

Synthesis of the Para-, Ortho- and Metanitroethylbenzenes 79-12-7/43

ASSOCIATION: All-Union Scientific Chemical-Pharmaceutical Research Institute imeni S. Ordzhonikidze (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze)

SUBMITTED: November 26, 1956

AVAILABLE: Library of Congress

1. m-Nitroethylbenzenes - Synthesis 2. o-Nitroethylbenzenes - Synthesis 3. p-Nitroethylbenzenes - Synthesis

Card 3/3

KOCHERGIN, P.M.; BLINOVA, L.S.; TITKOVA, R.M.; SAVITSKIY, A.V.; ZASOSOV, V.A.
GRIGOROVSKIY, A.M. [deceased]

New method for producing p-nitroacetophenone from phenylmethylcarbinol.
Med.prom.SSSR 12 no.5:33-36 My '58. (MIRA 11:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(ACETOPHENONE) (BENZYL ALCOHOL)

KOCHERGIN, P.M., BLINOVA, L.S., TITKOVA, R.M., GRIGOROVSKIY, A.M. [deceased]

New method for producing para-nitrobezaldehyde. Med.prom. 12 no.6:22-24 Je '58 (MIRA 11:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(BENZALDEHYDE)

KOCHERGIN, P.M., GONCHARENKO, G.K., KISELEVA, L.A.

The drug industry of the Chinese People's Republic. Med.prom. 12 no.9:54-57 S'58 (MIRA 11:9)
(CHINA—DRUG INDUSTRY)

KOCHERGIN, P.M.; TITKOVA, R.M.

Synthesis of sorbide dinitrate (nitrosorbide). Med. prom. 13 no.8:
18-20 Ag '59. (MIRA 13:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(SORBITOL)

KOCHERGIN, P.M.

Imidazole series. Part 8: Synthesis of some derivatives of imidazole- and imidazo(2,1 b)thiazolecarboxylic acids. Zhur. ob.khim. 30 no.5:1529-1536 My '60. (MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Imidazolecarboxylic acid) (Thiazolecarboxylic acid)

KOCHERGIN, P.M.

Imidazole series. Part 10: Improved method for preparing 2-mercaptoimidazoles from α-hydroxy ketones. Zhur. ob. khim. 31 no.4:1093-1096 Ap '61. (MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Imidazole)

KOCHERGIN, P.M.

Imidazole series. Part 11: Synthesis of imidazolyl-2-mercaptoacetic acids. Zhur.ob.khim. 31 no.10:3257-3261 O '61.
(MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Imidazoleacetic acid)

KOCHERGIN, P.M.

Imidazole series. Part 12: Synthesis of esters and hydrazides of imidazolyl-2-mercaptoacetic acids. Zhur.ob.khim. 31 no.10: 3262-3266 O '61. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Imidazoleacetic acid)

KOCHERGIN, P.M.

Imidazole series. Part 13: Action of acetic anhydride on imidazolyl-2-mercaptoacetic acids and their esters. Zhur.ob. khim. 31 no.10:3267-3272 O '61. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Acetic anhydride) (Imidazoleacetic acid)

KOCHERGIN, P.M.

Imidazole series. Part 9: Action of bromoacetic acid on esters of 2-mercaptoimidazolecarboxylic acids. Zhur. ob. khim. 31 no.1:184-189 Ja '61. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Acetic acid) (Imidazolecarboxylic acid)

KOCHERGIN, P.M.; BUSHUYEVA, K.S.

Synthesis of β-bromoethyl- and α,β-dibromoethylnitrobenzenes.
Zhur.ob.khim. 32 no.9:3033-3035 S '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Nitrobenzene)

KOCHERGIN, P.M.; BUSHUYEVA, K.S.

Preparation of alkyl- and N,N'-dialkyl amides of oxalic acid.
Zhur.prikl.khim. 35 no.12:2745-2749 D '62. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Oxamide)

KOCHERGIN, P.M.

Imidazole series. Part 15: Products of the reaction of N,N'-dimethyloxamide with phosphorus pentahalides. Zhur. ob. khim. 34 no. 10:3402-3407 O '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.

L 10766-66

ACC NR: AP5028179 SOURCE CODE: UR/0243/65/000/008/0006/0008

AUTHOR: Kochergin, P. M.; Shmidt, I. S.

ORG: All-Union Scientific Chemical-Pharmaceutical Research Institute im. S. Ordzhonikidze, Moscow (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut)

TITLE: Synthesis of Azathioprine

SOURCE: Meditsinskaya promyshlennost' SSSR, no. 8, 1965, 6-8

TOPIC TAGS: pharmacolcgy, organic synthetic process, leukemia, organ transplant immunology

ABSTRACT: The authors present two methods of synthesizing Azathioprine (Imuran), a compound used in the treatment of acute leukemia and for suppression of immunologic reactions in organ transplantation. The synthesis, which are said to be simpler than those used in the United States and other countries, are based on reaction of 6-merceptopurine hydrate with 1-methyl-4-nitro-5-chlorimidazole or of 6-chloropurine with 1-methyl-4-nitro-5-merceptoimidazole in water in the presence of an equivalent amount of sodium hydroxide. The crude product (yield 90-94%) is easily purified by crystallization from water. The yield of the pure compound is 85-89% of the theoretical.

SUB CODE: 06,07/ SUBM DATE: 27Mar65/ ORIG REF: 002/ OTH REF: 014
UDC: 615.771.7-012

Card 1/1

2

KOCHERGIN, S.I.

Category : USSR/Electronics - Cathode Ray Tubes H-6

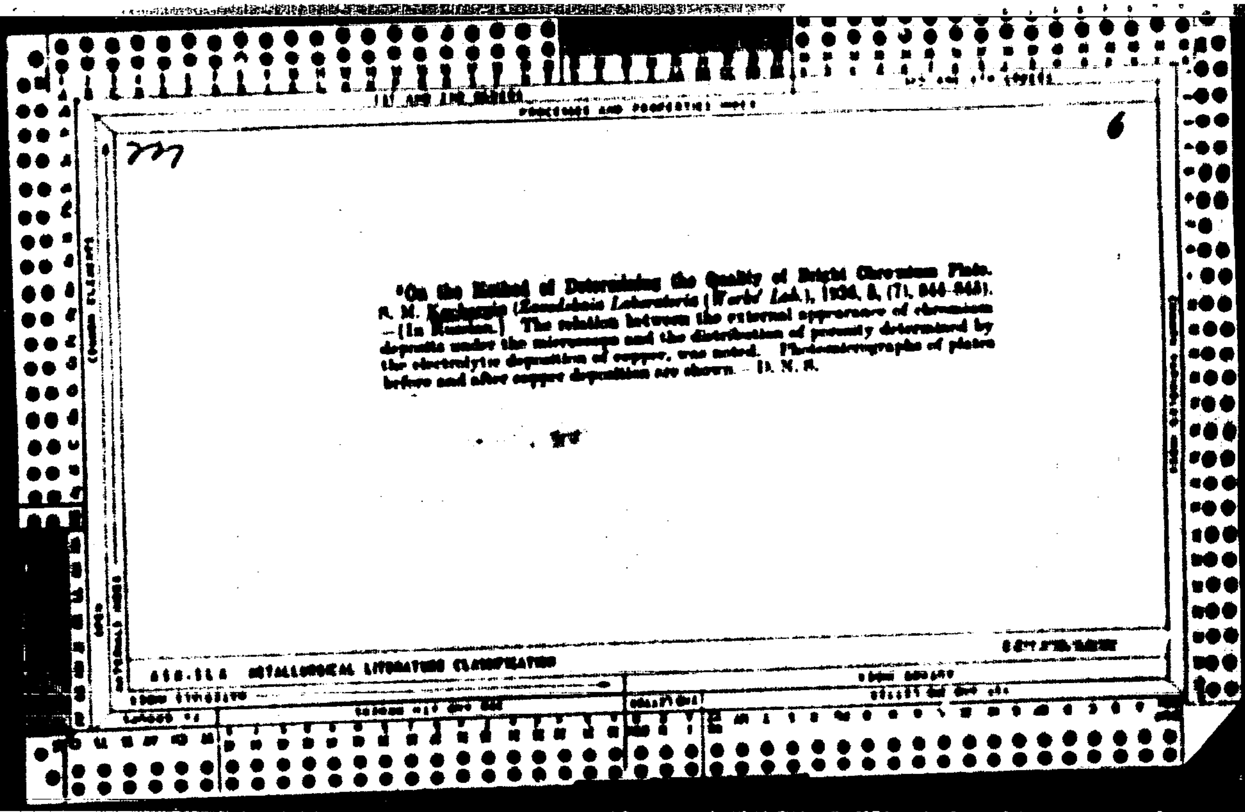
Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4305

Author : Kochergin, S.I., Petrova, I.V.
Title : Transients in Television Receiving Tubes

Orig Pub : Tekhn. televideniya, 1956, vyp. 18, 42-47

Abstract : No abstract

Card : 1/1



PROCESSES AND PROPERTIES INDEX

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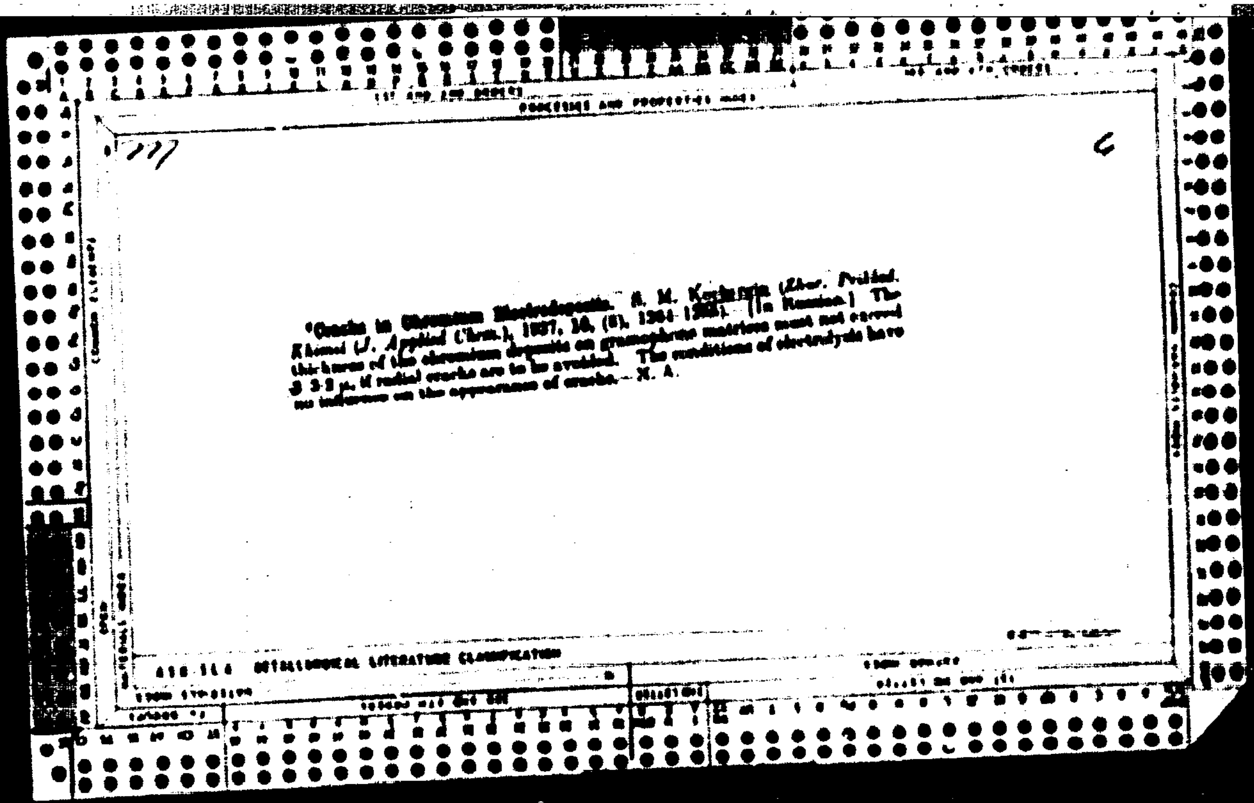
6

"On the Method of Determining the Quality of Bright Chromium Plate. R. M. [illegible] (*Zavodskaia Laboratoria* [*Works' Lab.*], 1936, 5, (7), 844-845). —[In Russian.] The relation between the external appearance of chromium deposits under the microscope and the distribution of porosity determined by the electrolytic deposition of copper, was noted. Photomicrographs of plates before and after copper deposition are shown.—D. N. S.

METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

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"Cracks in Chromium Electrodeposits." A. M. [illegible] (Zhur. Priklad. Khim. (J. Applied Chem.), 1937, 10, (8), 1364-1365). [In Russian.] The thickness of the chromium deposits on gramophone matrices must not exceed 3·3 μ, if radial cracks are to be avoided. The conditions of electrolysis have no influence on the appearance of cracks.—N. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MA

Electrodeposition

The Theory and Practice of Nickel Electroforming. [illegible] J. Applied Chem. (U.S.S.R.), [illegible] 12, [illegible] of any [illegible] [illegible] prevent adhesion of electroplated [illegible] obtained by immersing the [illegible] in a saturated solution of ammo[illegible] for 5-10 seconds or — what is more convenient in [illegible] for 2-3 seconds in a [illegible] of ammonium or potassium dichromate [illegible] of chromic acid for 1 minute. The nickel bath used for the [illegible] of electroforming should give a ductile deposit and should not give [illegible] evolution of H_2 [illegible] at the beginning of the plating, as this may [illegible] the protective film and result in adhesion of the [illegible]. A suitable bath composition is: $NiSO_4 \cdot 7H_2O$ 250, $Na_2SO_4 \cdot 10H_2O$ 75, [illegible] H_3BO_3 25 grm., H_2O 1 litre, temperature 15°-25° C. The current density during the first 5 minutes should be 0·3 amp./dm.², during the next [illegible] 1·0 amp./dm.², after [illegible] during the next ten minutes [illegible] be raised to 1·5 amp./dm.². The thickness of the deposits can be [illegible] from 3 [illegible] up to 1-2 mm. or more. — V. P.

1942

KOCHERGIN, S. M.

"Textures of Electrolytic Sediments in Nickel and Copper," Zhur. Tekh. Fiz., 16, No.11, 1946

Moscow Cheico-Tech. Inst. im. Mendeleyev

KOCHERGIN, S.M.

Texture of electrolytic deposits of metals. Trudy KKhTI no.11:47-53 '47. (MIRA 12:11)

(Electroplating) (Metallography)

KOCHERGIN, S.M.

Increasing the surface hardness of aluminum and aluminum alloys by means of chromium plating and oxide coating. Trudy KKhTI no.13:78-84 '48. (MIRA 12:12)

1. Kazanskiy khimiko-tekhnologicheskiy institut im. S.M. Kirova, kafedra tekhnologii neorganicheskikh veshchestv.
(Aluminum) (Chromium plating) (Metallic films)

PROCESSES AND PROPERTIES INDEX

ca

2

The electrocapillary effects of the amalgam and bismuth amalgam. S. V. Karpachev, V. P. Kochergin, and [illegible] (Ural Branch, Acad. Sci. U.S.S.R., Sverdlovsk). *J. Phys. Chem.* (U.S.S.R.) 23, 881-6(1949)(in Russian).— The cell used was [illegible] eutectic mixt. of LiCl and KCl [illegible] amalgam (x at. %) at 450°. The electrocapillary max. was at the e.m.f. V = 0.1 v. and the interfacial tension [illegible] about 400 dynes/cm. for x = 0. Sn amalgam showed [illegible] max. at 0.30 v. and [illegible] dynes/cm. for x = 5, 0.3 and 373 for x = 16, 0.30 and 400 for 50%, 0.34 and 470 for 64%, and 0.32 and about 570 for 100%. Bi amalgam gave, for x = 5, 15, 25, 50, and 100%, V = 0.35, 0.32, 0.30, 0.30, and 0.2 v. and [illegible] and about 375 dynes/cm. resp. To calc. the adsorption of Sn and Bi from the [illegible] the vapor pressure of Hg over the amalgams [illegible] was for 0.1, 1.710, 1.466, 1.316, [illegible] and [illegible] atm. for x = 0, 10, 20, [illegible] and for Bi it was 1.608, 1.604, [illegible] and [illegible] atm. for x = [illegible] and 84. The deviations from Raoult's law are slight. The adsorption (at V = 0.3 v.) of Sn has a max. between x = 10 and 15, is equal to zero at 15%, and has an almost const. neg. value (−1.24 × 10^{-4} mol./sq. cm.) at higher x. The adsorption of Bi is neg. at x < 30 and pos. at x > 30, and is somewhat greater than that of Sn. The min. thickness of the adsorption layer is 2.5 to 10 × 10^{-8} cm. for Sn amalgam and 6. to 19 × 10^{-8} cm. for Bi amalgam. J. J. Bikerman

ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION

USSR/Chemistry - Electrolytic Deposits of Metals   Nov 52

"Orientation of Crystallites in Electrolytic Deposits of Iron and Cobalt," S. M. Kochergin, Kazan' Chem-Technological Inst im S. M. Kirov

"Zhur Fiz Khim" Vol 26, No 11, pp 1610-1614

The orientation of crystallites in electrolytic deposits shows that the characteristic axis of the grain for Ni is (001), for Co (011) and for Fe (111). Secondary axes in the most diverse combinations accompany these basic axes of the

(1)   24278

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texture [structure]. The conditions of electrolysis, the compn of the electrolyte can change the characteristic grain axis for a given metal, and so make it secondary or exclude it entirely. The clearest grain structure was apparent in those deposits of Fe obtained from baths with a significant percentage of Cl ions. A change in the current density also affects the degree of perfection of the grain structure of electrolytic Fe, and causes a shift in the grain's axis. At high current densities, the deposits barely develop a grain structure. The most perfect anisotropy was apparent in deposits obtained at a current density of 1.5-4 A/sq dm. The change in the electrolyte's temp does not change the axis of the grain. The best results are obtained at 40-50°C. There is very little orientation of crystallites at low pH values. There is a greater degree of perfection in the orientation of grains developing in more finely cryst deposits.

(5)   242T8

[redacted]

Texture of electrodeposited metals depending on the conditions of electrolysis. Trudy KKhTI no.12:8-58 '53 [publ. '54]. (MIRA [illegible])
(Metal crystals) (Electrolysis)

KOCHERGIN, S.M.

BTR V3
3 Feb 1954
Electrochemistry +
Electroprocesses

[illegible]

Q
3

✓1936 Study of Electrocrystallization of Metals in an Ultrasonic Field. (Russian.) S. M. Kochergin and N. N. Tyrpilovskii. Zhurnal Fizicheskoi Khimii, v. 27, no. 3, Mar. 1953, p. 394-398.

Mechanism of the effect of ultrasonic vibrations on electrodeposition was studied. Diagrams, graphs. 4 ref.

KOCHERGIN, S. M.

"The Texture of Electrodeposition of Metals and the Conditions for Its Formation." Dr Chem Sci, Moscow Chemicotechnological Inst imeni D. I. Mendeleyev, Min Higher Education USSR, Moscow, 1954. (KL, No 16, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

KOCHERGIN, S. M.

AID P - 3164

Subject : USSR/Chemistry

Card 1/1 Pub. 119 - 6/7

Author : Kochergin, S. M. (Kazan')

Title : Crystallic structure of metals and electrodic processes

Periodical : Usp. khim., 24, 6, 779-783, 1955

Abstract : The nature of the orientation of crystallites in metal electrodes is discussed. The effect of interatomic distances on the electrode surface on electrochemical processes, particularly with respect to catalysis, is reviewed. One table, 48 references, 42 Russian (1930-1954).

Institution : None

Submitted : No date

Name	KOCHERGIN, Sergey Mikhaylovich
Dissertation	The Texture of Electroplated Metals and Conditions of its Formation
Degree	Doc Chem Sci
Affiliation	Kazan' Chem -Engineering Inst imeni Kirov
Defense Date, Place	6 Jun 56, Council of Moscow Order of Lenin Chem-Engineering Inst imeni Mendeleyev
Certification Date	29 Dec 56
Source	BMVO 7/57

KOCHERGIN,SM.; NIKULIN, V.N.

Crystallite orientation in electrlytic deposition of tin. Zhur.fiz. khim. 30 no.8:1721-1728 Ag '56. (MIRA 10:1)

1. Kazanskiy khimiko-tekhnologicheskiy institut imeni S.M. Korova.
(Tin plating)

KOCHERGIN, S.M.

USSR/Physical Chemistry - Electrochemistry. B-12

Abs Jour : Referat Zhur - Khimiya, No 6, 25 March 1957, 18702

Author : Kochergin, S.M. and Nikulin, V.N.

Title : Orientation of Crystallites in Electrolytic Precipitates of Tin.

Orig Pub : Zh. fiz. khimii, 1956, 30, No 8, 1727-1728

Abstract : Orientation of crystals in electrolytic precipitates of Sn obtained from stannate- and sulphate-containing electrolytes, at the density of the current (i) equal to 1-5 a/dm^2, was investigated. Precipitates obtained from stannate-containing electrolytes have weakly manifested orientation which becomes more perfect when the dimensions of crystals become smaller and when the thickness of the precipitate becomes greater. Change of (i) ani of the temperature of electrolyte (25° - 50°) leads to the change of orientation of crystals and of the degree of perfection of the texture. Precipitates obtained from

Card 1/2

S. M. Kirov Inst. Chem. Tech., Kazan

KOCHERGIN, S.M.

PHASE I BOOK EXPLOITATION SOV/[illegible]

5(0)

Kazan'. Khimiko-tekhnologicheskiy institut imeni S.M. Kirova

Trudy, vyp. 22, Khimicheskiye nauki (Transactions of the Chemical and Technological Institute imeni S.M. Kirov, Kazan. Nr 22, Chemical Sciences) Kazan', 1958. 273 p. Errata slip inserted. [illegible] copies printed.

Editorial Board: [illegible] (Resp. Ed.) Professor, [illegible] (Resp. Ed.) [illegible], Professor, [illegible] (Deputy Resp. Ed.) Professor, [illegible], Professor, S.M. Kochergin, Professor, A. Ye. Arbuzov, Academician, [illegible], Professor, [illegible], Professor, A.M. [illegible], Professor, [illegible], Professor, [illegible] (Resp. Secretary) [illegible] Ed.: [illegible] Tech. Ed.: [illegible]

PURPOSE: This book is intended for industrial chemists, technologists, scientists, teachers, and research students in applied chemistry.

COVERAGE: The collection contains reports by faculty members of the sponsoring institute and also commemorates the 75th year of the birth and first anniversary of the death of Professor Aleksey Mikhaylovich Vasil'yev, Doctor of Chemical Sciences and Head of the Faculty. A review of Vasil'yev's scientific activities is given along with a chronological bibliography of his published works and that of members of the institute under his leadership. Articles of the collection deal mainly with electro-chemistry and the analysis of electrochemical processes, chemical analyses, and investigations of the prospective application of [illegible] phenomena in industrial processes, e.g., cleaning with ultrasound, enhancing the properties of building materials with additives, etc. References are given at the end of each article.

TABLE OF CONTENTS:

SOV/[illegible]

Transactions of the Chemical (Cont.)

17.	Kochergin, S.M., G.R. [illegible], and A.V. [illegible]. The Application of [illegible] and Microphotometry to Investigations of Metal Distribution at the Cathode	[illegible]
18.	[illegible], K.A. Changing the Drying Properties of Clay in the Production of Construction Brick by Introducing Additives (First Report)	130 13[illegible]
19.	[illegible], B.B. Ultrasonic Cleaning of Metallic Items	
20.	Kochergin, S.M., B.K. [illegible], and B.B. [illegible]. Removal of Scale in an Ultrasonic Field	139
21.	[illegible], K.A., and O.V. [illegible]. Study of the Drying Process of Meteorological Balloon Covers (First report)	14[illegible]
22.	[illegible], A.G. Application of the Theory of Similarity to the Investigation of Molecular Transfer in Gases	15[illegible]

Card [illegible]/6

SOV/156-58-4-43/49

AUTHORS: Kochergin, S. M., Terpilovskiy, N. N., Vyaseleva, G. Ya.

TITLE: The Influence Exerted by the Ultrasonic Field on the Gas Content During the Electrolysis (Vliyaniye ul'trazvukovogo polya na gasonapolneniye pri elektrolize)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 4, pp 779-781 (USSR)

ABSTRACT: Experimental data were given on the influence exerted by ultrasonic vibrations on the gas content during the electrolysis of H_2SO_4 and NaCl as well as NaOH in order to obtain H_2O_2 and Cl_2. The electrolysis indicated in table 1 was carried out by means of specially manufactured apparatus. The modification of the electrolyte resistance factor in dependence on the gas content at the ultrasonic field was investigated. The dependence of the gas content on time under influence exerted by ultrasonics on the electrolyte was investigated. A considerable reduction of the gas content percentage takes place in the ultrasonic field due to a decrease of the ohmic resistance during the analysis. In the course of a more extended electrolysis in the ultrasonic field the percentage of gas content

Card 1/2

SOV/156-58-4-43/49

The Influence Exerted by the Ultrasonic Field on the Gas Content During the Electrolysis

becomes constant. In order to obtain hydrogen and chlorine by application of ultrasonics a decrease in electric power consumption takes place.
There are 4 figures and 10 references, 8 of which are Soviet.

ASSOCIATION: Kafedra fizicheskoy khimii Kazanskogo khimiko-tekhnologicheskogo instituta (Chair of Physical Chemistry at the Kazan' Chemico-Technological Institute)

SUBMITTED: May 31, 1958

Card 2/2

KOCHERGIN, S.M.; POBEDIMSKIY, G.R.

[redacted]

Use of radioactive isotopes for study of formation conditions of electrolytic alloys. Zhur. prikl. khim. 31 no.9:1432-1433 S '58. (MIRA 11:10)

(Alloys) (Electroplating) (Radioisotopes)

76-32-4-32/43

AUTHORS: Kochergin, S. M., Pobedimskiy, G. R., Leont'yev, A. V.

TITLE: The Application of the Radioautographic Method for Investigating Cathodic Depositions of Metals (Primeneniye radioavtografii k issledovaniyu katodnykh osadkov metallov)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 4, pp. 930 - 931 (USSR)

ABSTRACT: The results of the experiments were given at the Moscow All-Union Conference on the Current Distribution in the Electric Deposition of Metals in April 1957. Radioautograms of electrolytic silver depositions of cyanide electrolytes were obtained, and an automatic registering microphotometer was used for this. The composition of the electrolytes was $AgCN$ - 8,25 g/l; KCN - 8,25 g/l, a radioactive isotope Ag^{110} having been added. The silver was deposited on different kinds of copper electrodes (flat, semicylindrical and angular ones). A function between the thickness of the layer of the electrolytic deposition and the blackening of the radiograph was found and defined by an equa-

Card 1/2

76-32-4-32/43

The Application of the Radioautographic Method for Investigating Cathodic Depositions of Metals

tion. As can be seen from the mentioned diagrams of the different forms of electrodes, as well as from the series of carried out experiments this method is suitable for the determination of the relief of electrolytic depositions and can distinguish between unevennesses down to the order of tenths of microns, when greatest care is applied in taking the radiograph even to one hundredth of a micron. It is to be expected that this method can be used successfully in the investigation of the processes of electrocrystallization of metals and their alloys. There is 1 figure.

ASSOCIATION: Khimiko-tekhnologicheskiy institut im. S. M. Kirova, Kazan' (Kazan', Chemical-Technical Institute imeni S. M. Kirov)

SUBMITTED: May 9, 1957

AVAILABLE: Library of Congress

Card 2/2 1. Metals--Electrodeposition 2. Silver isotopes (Radioactive) --Applications 3. Autoradiography--Applications

PHASE I BOOK EXPLOITATION SOV/4920

Kochergin, Sergey Mikhaylovich

Tekstura elektroosazhdennykh metallov (Texture of Electrodeposited Metals) Moscow, Metallurgizdat, 1960. 127 p. Errata slip inserted. 4,250 copies printed.

Ed.: A. G. Spektor; Ed. of Publishing House: M. S. Arkhangel'skaya; Tech. Ed.: A. I. Karasev.

PURPOSE: This textbook is intended for advanced students of electrochemistry and physical chemistry in schools of higher education. It may also be helpful to scientific workers, teachers, and engineers in this field.

COVERAGE: The book contains information on features of textures of electrodeposited metals and reviews methods of determining textures with the aid of X-ray analysis. Equipment used for this purpose is also described. A. V. Leont'yev, assistant, wrote the section on the graphoanalytical method of calculating texture, described the

Card 1/6

Texture of Electrodeposited Metals SOV/4920

construction of some cameras, and helped in editing. There are 45 references: 33 Soviet, 8 English, 3 German, and 1 Spanish.

TABLE OF CONTENTS:

Foreword 5

Ch. I. General Information on the Texture of Metals 7

Ch. II. Orientation of Crystallites in Electrolytic Deposits of Metals 15
- Historical information 15
- Characteristics of textures of electrolytic deposits of metals 17
  - Zinc 17
  - Cadmium 19
  - Chromium 22
  - Iron 24
  - Cobalt 27

Card 2/6.

S/081/61/000/012/001/028
B105/B202

AUTHORS: Kochergin, S. M., Vozdvizhenskaya, Ye. S., Kupidonova, Ye. P.

TITLE: Texture of electrolytic alloys

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1961, 34, abstract 12B207. (Tr. Kazansk. khim.-tekhnol. in-ta, 1960, vyp. 29, 69-70.)

TEXT: The authors made an X-ray examination of the formation of the texture in the electrolytic alloys Cu-Zn, Ni-Co and Co-Zn. It was found that the electrolytic deposits of brass which are obtained from oxalate, pyrophosphate, and cyanogen electrolytes have no texture. The studies of alloys with a content of 52-63% Ni and 36-48% Co showed a predominant formation of crystallites with an orientation towards the [011] axis and partly towards the [001] axis. The texture has a high level of perfection, a reduction of the current density favors the formation of the texture in the direction of the [001] axis. It was shown that the composition of the electrolyte plays an important part in the process of the texture formation. [Abstracter's note: Complete translation.]

Card 1/1

Kochergin, S.M.

82108
S/153/60/003/03/06/009
B016/B055

18.7400

AUTHORS: Kochergin, S. M., Pobedimskiy, G. R.

TITLE: Application of Radioactive Tracers 19 in Investigating the Formation Conditions of the Electrolytic Titanium - Cobalt Alloy

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 3, pp. 457-460

TEXT: The authors showed that the electrolytic deposition of titanium can be effected much more easily in the form of titanium - nickel or titanium - cobalt alloys. These alloys are superior to pure titanium with respect to several important properties and promise good applicability for various purposes (Refs. 2 and 3). They can be deposited from strong basic electrolytes in the presence of gallic and tartaric acids, but the deposited layer is never thicker than 1μ. Electrodeposition from boron-fluorine electrolytes, however, is more promising. Radioactive tracers were applied to investigate the electrolytic formation of alloys. The authors describe this process. The cathode with the electrolytic Ti - Co

Card 1/3

Application of Radioactive Tracers in Investigating the Formation Conditions of the Electrolytic Titanium - Cobalt Alloy

82108
S/153/60/003/03/06/009
B016/B055

There are 3 figures and 6 Soviet references.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut im. S.M.Kirova; Kafedra fizicheskoy khimii (Kazan' Institute of Chemical Technology imeni S. M. Kirov, Chair of Physical Chemistry)

Card 3/3

5.4130

77534
SOV/80-33-1-43/49

AUTHORS: Kochergin, S. M., Pobedimskiy, G. R.

TITLE: Brief Communications. Investigation of Conditions of Electrodeposition of Titanium-Cobalt Alloy by Using Radioactive Indicator Cobalt-60

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 1, pp 238-240 (USSR)

ABSTRACT: A method of electrodeposition of titanium-cobalt alloy from boron fluoride electrolyte, with addition of ammonium salt and glue is suggested. Increase of current density and lowering of the bath temperature at a constant ratio of components) increases the titanium content of the alloy. It is possible to obtain electroplating of titanium-cobalt alloy 10 thick with a titanium content of up to 10%. Electrodeposition of titanium-cobalt alloy with high titanium content is possible for metallurgy. The use of radioactive indicators made it possible to determine component content

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Ca.

Card 1/2

KOCHERGIN, S.M.; GOLIKOV, G.A.

Determination of the quality of the electrode surface by measuring the contact difference of potentials. Trudy KKHTI no.30:271-276 '62. (MIRA 16:10)

KOCHERGIN, S.M.; BARABANOV, V.P.; BOGDANOV, B.L.

Study of electrolytic transport in solutions of a copolymer of methacrylic acid by the radioactive tracer method. Trudy KKHTI no.30:277-281 '62. (MIRA 16:10)

5.1310

S/080/62/035/004/018/022
D214/D301

AUTHORS: Kochergin, S. M. and Khonina, L. L.

TITLE: The study of mechanism of the action of surface active agents on the electrodeposition of metals by means of radioactive indicators

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 4, 1962, 909-910

TEXT: It was shown in previous works that surface active agents containing sulphur affect the nature of electrodeposited metals. It is the purpose of the present work to study the mechanism of this action. The sulphur content of the electrodeposited copper from a $CuSO_4/H_2SO_4$ solution was determined by radioactive indicators (^{35}S). Experimental details are given. Various quantities of cystine were added to the electrolyte prior to electrolysis. The sulphur content in the deposited copper depended on the concentration of cystine and the experimental temperature, maximum value being obtained with 0.20 gm/l cystine at 40 - 50°C. The sulphur

Card 1/2

X

S/080/62/035/004/018/022
D214/D301

The study of mechanism ...

content also increased with an increase in the current density, particularly at high cystine concentration, but decreased as the concentration of $CuSO_4$ and/or H_2SO_4 was increased. X-ray work showed that although the texture of the deposited copper is improved by the presence of cyscine, the orientation is unaltered. There are 3 figures and 11 references: 10 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: G. T. Rogers, M. I. Ware, R. V. Fellows. J. Electrochem. Soc., 107, 8, 677, (1960).

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut imeni S. M. Kirova (Kazan Institute of Chemical Technology imeni S. M. Kirov)

SUBMITTED: April 19, 1961

Card 2/2

KOCHERGIN, S.M.; TERPILOVSKIY, N.N.; VYASELEVA, G.Ya. (Kazan')

Anodic dissolution of copper in an ultrasonic field. Zhur. fiz. khim. 35 no. 4:917-919 Ap ~~'61~~. (MIRA 14:5)
'62

1. Kazanskiy khimiko-tekhnologicheskiy institut im. S.M. Kirova, kafedra fizicheskoy i kolloidnoy khimii.
(Copper) (Ultrasonic waves)

S/080/62/035/009/012/014
D287/D307

AUTHORS: Kochergin, S.M., and Lazareva, L.D.

TITLE: Investigations on the electrodeposition of thallium with metals, using radioactive indicators

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 9, 1962, 2098 - 2100

TEXT: The present work is concerned with an extension of numerous earlier studies (carried out by Soviet authors on the electrodeposition of metals) by using radioactive indicators. Zn, Fe, Cd, Ni, Pb, Cu and Ag were deposited on the cathode. Radioactive Tl^{204} (normal potential = 0.335 V) was used. All experiments were carried out in 2 series, on 3 to 4 samples each, the experimental error between the two series being not greater than 1 - 3 %. Under the selected experimental conditions Tl did not codeposit with Cd and Cu. The quantity of Tl deposits was found to increase linearly with increasing Tl concentration in the solution. The effect of changing the current density differed for various metals. Anomalous graphs were obtained for the deposition of Ni when the temperature was changed. ✓

Card 1/2

S/080/62/035/009/012/014
D287/D307

Investigations on the ...

Increased deposition of the metals was observed in all other instances when the temperature was raised. There are 5 figures and 1 table.

SUBMITTED: July 7, 1961

Card 2/2

KOCHERGIN, S.M.; GOLIKOV, G.A.

Evaluating the state of surfaces of zinc electrodes as dependent on the treatment and structure by measuring the contact potential difference. Izv.vys.ucheb.zav.;khim.i khim.tekh. 6 no.1:111-113 '63. (MIRA 16:6)

1. Kazanskiy khimiko-tekhnologicheskiy institut, kafedra fizicheskoy khimii.

(Electrodes, Zinc)

KOCHERGIN, S.M.; KHONINA, L.L.

Study of the mechanism of the action of surface-active substances during the electrodeposition of metals by the radioactive-tracer technique. Zhur.prikl.khim. 36 no.3: 673-676 My '63. (MIRA 16:5)

1. Kazanskiy khimiko-tekhnologicheskiy institut imeni Kirova.
(Electroplating) (Surface-active agents)
(Radioactive tracers)

KOCHERGIN, S.M.; GOLIKOV, G.A.

Comparative characteristics of the state of an electrode surface determined by the measurement of contact potential difference. Zhur. fiz. khim. 37 no.5:1116-1119 My '63. (MIRA 17:1)

1. Kazanskiy khimiko-tekhnologicheskiy institut imeni S.M. Kirova.

L 12603-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG
ACCESSION NR: AP3001704 S/0126/63/015/005/0784/0786

56
55

AUTHOR: Kochergin, S. M.; Golikov, G. A.

TITLE: Contact potential difference of copper and nickel treated with electrolytes

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 5, 784-786

TOPIC TAGS: contact potential difference, Cu, Ni, electrolyte, discharge energy of electron, surface condition, oxidizing solution, reducing solution

ABSTRACT: The contact potential [illegible] commercial copper foil and nickel sheets treated with electrolytic solutions were measured to study the metal surfaces. A capacitor with a vibrating electrode was used as measuring equipment, and a gold plate was used as comparing electrode. All measurements were made in the air. The following solutions were used: oxidizing - 0.1% KMnO sub 4, 0.1% CrO sub 3, 0.1% K sub 2, Cr sub 2 O sub 7, reducing - 0.1% Na sub 2 S, 0.1% KI, 0.1% FeSO sub 4 in 0.01 NH sub 2 SO sub 4. Oxidizing solutions caused a decrease of contact potential difference; reducing solutions caused an increase. It is concluded that a superficial layer always exists on the surface of the metal, regardless of the solution with which the surface is treated. Various solutions,

Card 1/2

L 12603-63
ACCESSION NR: AP3001704

however, affect and change the composition of the layer, and thus affect the discharge energy of electrons. Orig. art. has: 4 figures.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut im. S. M. Kirova (Kazan Institute of Chemical Technology)

SUBMITTED: 26Feb62 DATE ACQ: 11Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 003 OTHER: 000

Card 2/2

KOCHERGIN, S.M.; VYASELEVA, G.Ya.; IZMAYLOV, A.M., doktor tekhn. nauk, retsenzent; DANILOVA, V.V., red.

[Electrodeposition of metals in ultrasonic fields] Elektroosazhdenie metallov v ul'trazvukovom pole. Moskva, Vysshaia shkola, 1964. 110 p. (MIRA 18:1) [illegible] was investigated. [illegible]